What is claimed is:

1. A method for stabilizing RNA in vivo and/or in vitro comprising:

   1) the growth of prokaryotic or eukaryotic cells in media containing thio-phosphate as a source of phosphorous

   2) the subsequent isolation of the RNA by rapid boiling, or organic extraction methods and/or RNA binding matrices.

2. The method of claim 1 where the introduction of thio-phosphate into multi-cellular organisms is accomplished by injection, digestion, or absorption.

3. A method for maximizing the accumulation of a desired protein product(s) comprising:

   1) growing cells in thio-phosphate containing media

   2) determining the optimal ratio of thio-phosphate to inorganic phosphate in the culture media

   3) determining the optimal time point for maximum levels of protein synthesis.

4. The method of claim 3 wherein the cells used to generate the protein are prokaryotic or eukaryotic in origin.

5. The method of claim 3 wherein the protein is produced using a recombinant DNA or viral expression vector or whole virus.

6. The method of claim 3 wherein the enhancement of a protein or several proteins is used to increase the rate or yield of non-protein products such as antibiotics, chemical intermediates, organic acids, etc.

7. The method of claim 3 where the introduction of thio-phosphate into multi-cellular organisms is accomplished by injection, digestion, or absorption.